

### REMARKS

Claims 1-42 are currently pending in the subject application and are presently under consideration. A version of all pending claims is located on pages 2-8 of this Reply. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments herein.

#### **I. Rejection of Claims 1-15, 21-30, 32-39, 41 and 42 Under 35 U.S.C. §101**

Claims 1-15, 21-30, 32-39, 41 and 42 stand rejected under 35 U.S.C. §101 as being allegedly directed to non-statutory subject matter. It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. The Federal Circuit has clearly established in *Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1338 (Fed. Cir. 2005) and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358. (Fed.Cir. 1999) that inventions such as that claimed by applicant are statutory.

This court must also decide whether software code made in the United States and exported abroad is a "component of a patented invention" under 271(f)... Section 271(f) refers to "components of a patented invention."... Title 35, section 101, explains that an invention includes "any new and useful process, machine, manufacture or composition of matter."... Without question, *software code alone qualifies as an invention eligible for patenting under these categories*, at least as processes. *Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1338 (Fed. Cir. 2005). (Emphasis added).

The Federal Circuit in *Eolas Techs., Inc. v. Microsoft Corp.* clearly established that software code alone is statutory subject matter. Independent claims 1, 30, and 41 recite a *computer implemented system*. Independent claim 42 recites *processes executing on one or more computer systems*. A system by itself is statutory subject matter. By the standards set forth in the above decision, a computer implemented system in the form of software, hardware, or the combination of both clearly falls within the categories of statutory subject matter. Independent claim 21 recites a *computer implemented method* and by the same standard as set forth above, this claim falls within the categories of statutory matter.

Furthermore, the subject claims produce a useful, concrete, and tangible result.

Because the claimed process [method] applies the Boolean principle to produce a useful, concrete, tangible result ... on its face the claimed process comfortably falls within the scope of §101. *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358. (Fed.Cir. 1999); *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed.Cir.1998) (finding a system implementing a financial management structure satisfied §101 because it constituted a practical application of a mathematical algorithm by producing a useful, concrete and tangible result).

As provided above, the legal standard set forth by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc* for determining whether a claim is directed towards statutory subject matter is whether a claim can be applied in a practical application to produce a useful, concrete, and tangible result. The Office Action concedes that the invention produces a useful and concrete result, but asserts that no tangible result is produced. On the contrary that invention produces a weighted graph with newsgroups as the vertices and cross-postings as the edges. The weighted graph is a tangible result that can be employed by a system or human for analysis. Furthermore, the claims recite computer implemented which inherently implies that the weighted graph at some point is stored on a computer readable medium, such as a hard drive, RAM memory or cache memory. It is clear that the results produced in the subject claims are tangible.

In view of at least the foregoing, it is readily apparent that applicants' invention as recited in independent claims 1, 21,30, 41 and 42 (and associated dependent claims 2-15, 22-29, 32-39) is statutory subject matter and produces a useful, concrete, and tangible result. Accordingly, withdrawal of this rejection is respectfully requested.

## **II. Rejection of Claims 1-42 Under 35 U.S.C. §103(a)**

Claims 1-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ding ("Analysis of gene expression profiles: class discovery and leaf ordering", RECOMB 2002, April 2002), in view of Uomini (US 5,819,269). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Ding and Uomini, alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicants' disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The subject invention relates to organizing newsgroups into clusters based upon cross posts between newsgroups. A weighted graph is constructed with newsgroups as the vertices and cross-posts as the edges to facilitate analysis of the degree to which newsgroups are related. In particular, independent claim 1 (and similarly independent claims 21, 30 and 40-42) recites *an engine that constructs a weighted graph with a subset of the **newsgroups represented as vertices of the graph, and cross-postings relating to the subset of newsgroups represented as edges.***

Ding and Uomini do not teach or suggest the aforementioned claimed features of applicants' invention and also provide no motivation to be combined. To the extent Ding relates in any manner to applicants' claimed invention, it merely teaches clustering of data – there is no teaching or suggestion that the vertices of a weighted graph are newsgroups and that the edges are cross posts between the newsgroups as in the claimed invention. Ding is concerned with clustering data related to tissue sample and gene responses to understand what role genes play in diseases. The prior art reference states, “We briefly introduce the min-max cut graph partition and clustering method very recently developed for internet newsgroup clustering” which is the single reference to internet newsgroup clustering in the cited art. Ding goes on to describe the min-max cut algorithm in generic terms. Ding provides no details as to how this clustering method is used with regard to Internet newsgroup clustering and specifically fails to disclose what the vertices and edges are in the weighted graph. As stated above, Ding is concerned with how this method might be used for tissue sample data clustering.

Moreover, Uomini discloses a method for posting messages to newsgroups and including category and sub-category fields in the header of the post to allow for categorization of posts beyond the basic newsgroup categories provided by newsgroup management entities. This

allows users of the system to effectively create new newsgroups without having to engage in the long processes established by the newsgroup management entities for creating a new newsgroup. The cited art makes a brief mention of cross-posting to multiple newsgroups, though, only with respect to stating that it is possible to do so when posting a message. Uomini is silent regarding newsgroup clustering and weighted graphs, and thus does not makeup for the deficiencies of Ding with regard to teaching that the vertices of a weighted graph are newsgroups and that the edges are cross posts between the newsgroups.

Furthermore, Ding is concerned with clustering of tissue samples and Uomini is concerned with categorization of newsgroup postings. The references are not analogous, and provide no motivation to be combined as suggested. However, *assuming arguendo* that the references could be combined, they still fail to teach or suggest that newsgroups are represented as vertices of a weighted graph, and cross-postings relating to the newsgroups are represented as edges. The Office Action, Response to Arguments section asserts that since Ding makes a reference to Internet newsgroups along with weighted graphs and Uomini makes a reference to cross-postings that it would have been obvious to create a weighted graph with newsgroups as the vertices and cross-postings as the edges. However, as discussed above, Ding only makes a casual reference to Internet newsgroups and does not provide any disclosure as to how they are used in relation to a weighted graph. Moreover, Uomini only makes a casual reference to cross-postings in newsgroups without any discussion of weighted graphs. Both Ding and Uomini are silent regarding clustering of newsgroups. Therefore, the combination of Ding and Uomini do not make any suggestion that a weighted graph would have newsgroups as vertices and cross-postings related to the newsgroups as edges.

In view of the foregoing, applicants' representative respectfully submits that Ding and Uomini, alone or in combination, fail to teach or suggest all limitations of applicants' invention as recited in independent claims 1, 21, 30 and 40-42 (and claims 2-20, 22-29 and 31-39 that depend there from), and thus fails to make obvious the subject claimed invention. Accordingly, this rejection should be withdrawn.

### **III. Rejection of Claims 35 and 38 Under 35 U.S.C. §103(a)**

Claims 35 and 38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ding ("Analysis of gene expression profiles: class discovery and leaf ordering", RECOMB 2002,

April 2002), in view of Uomini (US Patent 5,819,269), and further in view of Gage *et al.* (US Patent 5,923,846). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Ding, Uomini and Gage *et al.*, alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

Claims 35 and 38 depend from independent claim 30. As noted *supra*, Ding and Uomini do not teach or suggest each and every element of the subject invention as recited in independent claim 30 and Gage *et al.* fails to make up for the deficiencies of Ding and Uomini with regard to this independent claim. Gage *et al.* discloses a method of uploading and downloading files from a bulletin board that are represented as objects within messages. The cited art is silent regarding newsgroup clustering and weighted graphs. Therefore, Ding, Uomini, and Gage *et al.*, alone or in combination, fail to teach or suggest that newsgroups are represented as vertices of a weighted graph, and cross-postings relating to the newsgroups are represented as edges. For at least this reason, this rejection should be withdrawn.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP467US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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